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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,650	12/21/2001	Arthur Christopher Leyh	CS11235	1167

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EXAMINER

EWART, JAMES D

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 01/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,650

Applicant(s)

LEYH ET AL.

Examiner

James D Ewart

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,10-17 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,10-17,20-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. Objection to title withdrawn.
2. The applicant's arguments regarding prior art rejections filed November 12, 2003, have been fully considered by the Examiner and Examiner agrees with argument against claims 16, 24 and 26 that with TDMA transmit and receive at the same time is not taught by Byrne and therefore applicant is provided with a third non-final.
3. Regarding claims 1- 7, and 15 Applicant's arguments with respect to claims 1 – 7 and 15 have been considered but are moot in view of the new ground(s) of rejection.
4. Regarding claims 20 and 21, although in TDMA communication transmission is during slot(s), Examiner argues that during the time slot(s) for transmission, continuous transmission occurs.
5. Regarding claims 10-14, 17, 22 and 23, sending compressed CDMA requires additional circuitry and an additional step versus sending uncompressed CDMA. It's obvious that if you can send compressed CDMA that you can send or receive uncompressed CDMA. Examiner would appreciate it if applicant would provide arguments related to applicants invention. Examiner does not see anywhere in the specification that applicant is claiming uncompressed CDMA, however Examiner will provide a different reference of uncompressed CDMA. Again,

Application/Control Number: 10/027,650

Art Unit: 2683

please stick to the arguments that applicant finds to be their invention and group arguments together.

6. Regarding claims 16 and 24 - 27, examiner agrees with applicant that TDMA transmit and receive at the same time is not taught by Byrne and examiner will issue another non-final office action and will provide new reference for claims 24 and 26.

Claim Rejections - 35 USC § 112

7. Claims 1 and 15 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A first and second transmitter connectable ***at the same time*** to the same one of either of the first and second antennas is a limitation of claims 1 and 15, but not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

8. Claims 10-14, 17, 22 and 23 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. ***Transmitting or receiving an uncompressed CDMA signal*** is a limitation of claims 10-14, 17, 22 and 23, but not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Application/Control Number: 10/027,650

Art Unit: 2683

9. Claims 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Byrne (U.S. Patent No. 5,737,703).

Referring to claim 20, Byrne teaches a method in a wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34 and Column 4, Lines 9-10) comprising: transmitting a first signal with a first transmitter of the first transceiver operating in a continuous transmission mode (Column 7, Lines 6—67 and Column 8, Lines 20-64), the first transmitter coupled to a first antenna (Figure 2); receiving a second signal with a second receiver of the second transceiver at the same time the first transmitter is transmitting the first signal (Column 4, Lines 9-10), the second receiver coupled to a second antenna different than the first antenna (Figure 2). Again, Byrne teaches two transceivers, one of the transceivers is used for a phone call. During handoff, the one transceiver continues to handle the call, while both transceivers negotiate handoff. Thus, one is in a continuous reception mode and the other is in a noncontinuous reception mode (Column 4, Lines 9-10, Column 8, Lines 20-64 and Column 9, Lines 61-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Application/Control Number: 10/027,650

Art Unit: 2683

10. Claims 1, 3, 4, 6 and 7 are rejected under 35 USC 103(a) as being unpatentable over Byrne (U.S. Patent No. 5,737,703) in view of Vaisanen et al (U.S. Patent No. 6,560,443).

Referring to claim 1, Byrne teaches a wireless communications device, comprising: a first transceiver having a first receiver and a first transmitter (Figure 2; 220, 222); a first antenna coupled to the first receiver (Figure 2; 228); a second transceiver having a second receiver and a second transmitter (Figure 2; 230, 232); the first and second transmitters connectable at the same time to the same one of the first antenna (Figure 2 and Column 5, Lines 33-36), but does not teach a second antenna connected to the second transceiver. Vaisanen et al teaches a second antenna connected to the second transceiver (Figure 1). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the teaching of Vaisanen et al of using a second antenna connected to the second transceiver to so that the coverage can be monitored while the second transceiver is in use (Column 5, Lines 19-22).

Referring to claim 3, Vaisanen et al further teaches the first and second transmitters disconnectable from the same one of the first and second antennas (Figure 1).

Referring to claim 4, Byrne teaches the second receiver is a TDMA receiver, the second transmitter is a TDMA transmitter (Figure 4; GSM), but does not teach wherein the first receiver is a CDMA receiver and the first transmitter is a CDMA transmitter. Vaisanen et al teaches the first receiver is a CDMA receiver and the first transmitter is a CDMA transmitter (Column 2, Lines 2-10). Examiner equates CDMA with spread spectrum. Therefore, at the time the

Application/Control Number: 10/027,650

Art Unit: 2683

invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the teaching of Vaisanen et al of using a CDMA transceiver to provide a substantially interference free switching circuitry for sharing a pair of diversity antenna in a multi transceiver mobile terminal (Column 3, Lines 48-51).

Referring to claim 6, Vaisanen et al further teaches a switch coupling the first and second transmitters and the second receiver to the same one of the first and the second antennas (Fig. 1).

Referring to claim 7, Byrne further teaches a processor coupled to the first and second transceivers (Figure 2; 210, 220,230), a display and input/ outputs coupled to the processor (Figure 2; 205, 210).

11. Claims 24 and 26 are rejected under 35 USC 103(a) as being unpatentable over Byrne in view of Poirier et al. (U.S. Patent No. 6,341,219).

Referring to claim 24, Byrne teaches a method in a wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34 and Figure 2), the method comprising: transmitting with a first transmitter of the first transceiver; transmitting with a second transmitter of the second transceiver at the same time that the first transmitter is transmitting (Column 4, Lines 9-10); but does not teach receiving at the same time as transmitting. Poirier et al. teaches receiving at the same time as transmitting (Column 2, Lines 10-12 and Column 4, Lines 28-30). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the

Application/Control Number: 10/027,650

Art Unit: 2683

teachings of Poirier et al of receiving at the same time as transmitting to implement an increasingly popular transmission scheme (Column 1, Lines 14 and 15) with a power control scheme that utilizes a single control signal and provides optimal output power control (Column 4, Lines 21-24).

Referring to claim 26, Byrne teaches a method in a wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34 and Figure 2), the method comprising: receiving with a first receiver of the first transceiver; receiving with a second receiver of the second transceiver at the same time that the first receiver is receiving (Column 4, Lines 9-10); but does not teach receiving at the same time as transmitting. Poirier et al. teaches receiving at the same time as transmitting (Column 2, Lines 10-12 and Column 4, Lines 28-30). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the teachings of Poirier et al of receiving at the same time as transmitting to implement an increasingly popular transmission scheme (Column 1, Lines 14 and 15) with a power control scheme that utilizes a single control signal and provides optimal output power control (Column 4, Lines 21-24).

12. Claim 5 is rejected under 35 USC 103(a) as being unpatentable over Byrne and Vaisanen et al and further in view of Kitchener et al. (U.S. Patent No. 5,995,065).

Referring to claim 5, Byrne and Vaisanen et al teaches the limitations of claim 5, but do not specifically teach that the first antenna is an internal antenna, the second antenna is an external antenna. Kitchener et al. teaches the first antenna is an internal antenna, the second

Application/Control Number: 10/027,650

Art Unit: 2683

antenna is an external antenna (Column 1, Lines 61-62). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Kitchener et al. wherein the first antenna is an internal antenna, the second antenna is an external antenna so that the mobile device is not cumbersome and unsightly (Column 1, Lines 59-65).

13. Claims 10 – 14 are rejected under 35 USC 103(a) as being unpatentable over Byrne in view of Beasley et al. and further in view of Wang et al. (U.S. Patent No. 6,606,311)

Referring to claims 10 - 14, Byrne teaches a method in a multi-mode wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34), comprising: receiving a first signal with a first receiver of the first transceiver (Column 4, Lines 9-10); receiving a second signal with a second receiver of the second transceiver in a non-continuous reception mode at the same time the first receiver is receiving the first signal (Column 3, Lines 57-64; Column 4, Lines 9-10) and the second receiver is a GSM/TDMA receiver (Figure 4, 401), but does not teach the first receiver is a CDMA receiver. Beasley et al. teaches using a CDMA receiver (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Beasley et al. of using a CDMA receiver to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). The combination of Byrne and Beasley et al teach all the limitations of claims 10 - 14, but do not teach receiving an uncompressed CDMA signal. Wang et al teaches receiving an uncompressed CDMA signal (Column 2, Lines 1-4 and Column 3, Lines 7 - 13). Therefore, at

Application/Control Number: 10/027,650

Art Unit: 2683

the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne and Beasley et al. with the art of Wang et al. of receiving an uncompressed CDMA signal to identify and apply an appropriate QoS class of service to wireless IP data traffic flow (Column 3, Lines 6-8). Again, Byrne teaches two transceivers, one of the transceivers is used for a phone call. During handoff, the one transceiver continues to handle the call, while both transceivers negotiate handoff. Thus, one is in a continuous reception mode and the other is in a noncontinuous reception mode (Column 4, Lines 9-10, Column 8, Lines 20-64 and Column 9, Lines 61-67).

14. Claim 15 is rejected under 35 USC 103(a) as being unpatentable over Byrne, Beasley et al. and Wang et al. and further in view of Vaisanen et al.

Referring to claim 15, Byrne further teaches the first receiver coupled to a first antenna (Figure 2), the first transceiver includes a first transmitter, the second transceiver includes a second transmitter (Figure 2), connecting the first transmitter and the second transmitter to the first antennas at the same time (Figure 2, dashes line), but does not teach a second antenna coupled to the second transceiver. Vaisanen et al. teaches a second antenna coupled to the second transceiver (Figure 1). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne, Beasley et al. and Wang et al. with the teaching of Vaisanen et al. of a second antenna coupled to the second transceiver for sharing diversity antennae efficiently and as economically as possible (Column 3, Lines 45-47).

Application/Control Number: 10/027,650

Art Unit: 2683

15. Claim 16 is rejected under 35 USC 103(a) as being unpatentable over Byrne in view of Vaisanen et al. and further in view of Poirier et al.

Referring to claim 16, a method in a wireless communications device having a first transceiver, the method comprising: receiving a first signal with a first receiver of the first transceiver (Figure 1), the first receiver coupled to a first antenna (Figure 1); transmitting a second signal with a first transmitter of the first transceiver (Column 4, Lines 9-10), but does not teach the first transmitter coupled to a second antenna different than the first antenna. Vaisanen et al teaches the first transmitter coupled to a second antenna different than the first antenna (Figure 1). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the teaching of Vaisanen et al in which the first transmitter is coupled to a second antenna different than the first antenna for sharing diversity antennae efficiently and as economically as possible (Column 3, Lines 45-47). Byrne and Vaisanen et al teach the limitations of claim 16, but do not teach receiving at the same time as transmitting. Poirier et al. teaches receiving at the same time as transmitting (Column 2, Lines 10-12 and Column 4, Lines 28-30). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the teachings of Poirier et al of receiving at the same time as transmitting to implement an an increasingly popular transmission scheme (Column 1, Lines 14 and 15) with a power control scheme that utilizes a single control signal and provides optimal output power control (Column 4, Lines 21-24).

16. Claim 17 is rejected under 35 USC 103(a) as being unpatentable over Byrne and Vaisanen et al. and Poirier et al in view of Beasley et al. and further in view of Wang et al.

Referring to claim 17, Byrne teaches receiving the first signal with the first receiver (Column 4, Lines 9-10), but does not teach receiving a CDMA downlink signal. Beasley et al. teaches receiving a CDMA downlink signal (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne and Vaisanen et al. with the art of Beasley et al. of receiving a CDMA downlink signal to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). Byrne, Vaisanen et al. and Beasley et al teach the limitations of claims 17, but do not teach receiving an uncompressed CDMA signal. Wang et al teaches receiving an uncompressed CDMA signal (Column 2, Lines 1-4 and Column 3, Lines 7 - 13). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne and Beasley et al. with the art of Wang et al. of receiving an uncompressed CDMA signal to identify and apply an appropriate QoS class of service to wireless IP data traffic flow (Column 3, Lines 6-8).

17. Claim 21 is rejected under 35 USC 103(a) as being unpatentable over Byrne and further in view of Beasley et al.

Referring to claim 21, Byrne further teaches the second receiver is a TDMA receiver (Column 6, Lines 44-47), transmitting an uplink signal with the first transmitter; receiving the second signal with the TDMA receiver at the same time the first transmitter is transmitting the

Application/Control Number: 10/027,650

Art Unit: 2683

uplink signal (Column 4, Lines 9-10), but does not teach that the first transmitter is a CDMA transmitter. Beasley et al. teaches the first transmitter is a CDMA transmitter (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Beasley et al. wherein the first transmitter is a CDMA transmitter to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). Again, the Byrne reference teaches during handoff, the first transmitter could be receiving while the second is transmitting and visa versa (Column 4, Lines 9-10).

18. Claims 25 and 27 are rejected under 35 USC 103(a) as being unpatentable over Byrne and Poirier et al and further in view of Shaffer.

Referring to claims 25 and 27, Byrne teaches the limitations of claims 25 and 27, but does not teach receiving an uncompressed signal. Shaffer et al. teaches receiving an uncompressed signal (Column 8, Lines 52-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Shaffer et al. of receiving an uncompressed signal to improve signal quality (Column 8, Line 52).

19. Claims 22 and 23 are rejected under 35 USC 103(a) as being unpatentable over Byrne and further in view of Wang et al.

Application/Control Number: 10/027,650

Art Unit: 2683

Referring to claims 22 and 23, Byrne teaches the second receiver is a TDMA receiver (Column 6, Lines 44-47), transmitting uplink signal with the first transmitter; receiving the second signal with the TDMA receiver at the same time the first transmitter is transmitting the uplink signal (Column 4, Lines 9-10), but does not teach the first transmitter is a CDMA transmitter and receiving an transmitting an uncompressed CDMA signal. Wang et al teaches the first transmitter is a CDMA transmitter and transmitting an uncompressed CDMA signal (Column 2, Lines 1-4 and Column 3, Lines 7 - 13). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Wang et al. the first transmitter is a CDMA transmitter and transmitting an uncompressed CDMA signal to identify and apply an appropriate QoS class of service to wireless IP data traffic flow (Column 3, Lines 6-8).

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bender et al U.S. Patent No. 6,366,778 discloses synchronization of forward link base station power levels during handoff between base station sectors in a mobile radio communication system.

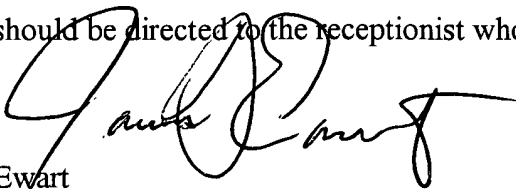
21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D Ewart whose telephone number is (703) 305-4826. The examiner can normally be reached on M-F 7am - 4pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James D Ewart can be reached on

Application/Control Number: 10/027,650

Art Unit: 2683

(703)308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-9508 for regular communications and (703)305-9508 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.



Ewart
December 29, 2003



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